

CLAIMS

1. A liquid crystal display (LCD) panel having a variable white balance, comprising:
an LCD screen;

5 a first light source having a first color spectrum;

a second light source having a second color spectrum;

an optical path directing said first light source and said second light source onto said
LCD screen; and

a control circuit for adjusting the relative intensity of said first and second light source

10 wherein said first light source and said second light source are mixed in the optical path thereby
creating a white balanced spectrum.

2. The LCD panel of claim 1, wherein said first and second light sources are cold cathode
fluorescent (CCFL) tubes.

15 3. The LCD panel of claim 1, wherein said first light source is a CCFL tube and said second
light source is an electroluminescent panel.

20 4. The LCD panel of claim 1, wherein said first light source is a CCFL tube and said second
light source is comprised of at least one light emitting diode.

5. The LCD panel of claim 4, wherein said second light source is comprised of at least two
different color light emitting diodes.

25 6. The LCD panel of claim 1, wherein at least one of said first and second light source
intensity is varied by changing the duty cycle of power to said at least one first and second light
source.

7. An electronic device comprising the LCD panel of claim 1.

8. The electronic device of claim 7 further comprising computer readable memory holding a configuration program for selecting a desired white balance.

9. The electronic device of claim 7 further comprising:

a sensor for detecting the ambient light color spectrum; and

a feedback control circuit connected to the control circuit wherein the feedback control circuit adjusts the relative light intensity of the first and second light sources to compensate for changes in ambient light color spectrum changes.

10. An electronic device, comprising:

an liquid crystal display screen;

a first light source having a first color spectrum;

a second light source having a second color spectrum;

an optical path directing the first and second light sources onto the liquid crystal display screen; and

a control circuit for adjusting the relative intensity of said first and second light source wherein said first light source and said second light source are mixed in the optical path thereby creating a white balanced spectrum.

11. A method for adjusting the white balance on a liquid crystal display (LCD), comprising the steps of:

illuminating the LCD with a first light source having a first color spectrum;

illuminating the LCD with a second light source having a second color spectrum; and

adjusting the relative intensity of the first and second light sources thereby mixing said first and second color spectrums to create a white balanced spectrum.

12. The method of claim 11 wherein the step of illuminating the LCD with a first light source further comprises the step of illuminating the LCD with a CCFL light source.

13. The method of claim 12 wherein the step of illuminating the LCD with a second light source further comprises the step of illuminating the LCD with a CCFL light source.

14. The method of claim 12 wherein the step of illuminating the LCD with a second light source further comprises the step of illuminating the LCD with a electroluminescent light source.

5 15. The method of claim 12 wherein the step of illuminating the LCD with a second light source further comprises the step of illuminating the LCD with at least one light emitting diode (LED).

10 16. The method of claim 15 wherein the step of illuminating the LCD with at least one light emitting diode (LED) further comprises the step of illuminating the LCD with at least two different colors of LEDs.

15 17. The method of claim 11 wherein the step of adjusting the relative intensities further comprises the step of changing the duty cycle of power supplied to at least one of the first and second light sources.

18. The method of claim 11, wherein the step of adjusting the relative intensities further comprises the step of selecting a desired white balance spectrum.

20 19. A display panel using the method of claim 11 to adjust white balance.

20. An electronic device having a display using the method of claim 11 to adjust white balance on the display.